

Docket No.: 005918 USA/FPS/MMCS/APC

PATENT/OFFICIAL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of

SHANMUGASUNDRAM et al.

Serial No. 09/943,955

Filed: August 31, 2001

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Group Art Unit: 2122

Examiner:

RECEIVED

DEC 19 2003

Technology Center 2100

For: FEEDBACK CONTROL OF A CHEMICAL MECHANICAL POLISHING DEVICE  
PROVIDING MANIPULATION OF REMOVAL RATE PROFILES

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.

This submission does not constitute a representation that a search has been made or that no better art exists and does not constitute an admission or representation that any of the listed documents is material or constitutes prior art. If it should be determined that any of the listed documents does not constitute prior art under the United States law, Applicants reserve the right

**Serial No. 09/943,955**

to present to the Office the relevant facts and law regarding the appropriate status of such document.

No certification or fee is believed to be required. However, the Commissioner is hereby authorized to charge any additional fees should any be required for this submission, or credit any overpayment to deposit account no. 08-0219.

Respectfully submitted,

HALE AND DORR LLP

A handwritten signature in black ink, appearing to read "Scott M. Alter", written in a cursive style.

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Date: 12/18/03

<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)</b>				ATTY. DOCKET NO. 005918 USA/FPS/MMCS/APC		SERIAL NO. 09/943 955 <b>RECEIVED</b> DEC 19 2003 Technology Center 2100	
				APPLICANT SHANMUGASUNDRAM et al.			
				FILING DATE August 31, 2001		GROUP 2122	
<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
	4,207,520	06/10/80	Flora et al.			04/06/78	
	4,209,744	06/24/80	Gerasimov et al.			03/27/78	
	4,609,870	09/02/86	Lale et al.			09/13/84	
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	5,427,878	06/27/95	Corliss			05/16/94	
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	6,041,263	03/21/00	Boston et al.			10/01/97	
	6,077,412	06/20/00	Ting et al.			10/30/98	
	6,271,670	08/07/01	Caffey			02/08/99	
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	US 2002/0077031	06/20/02	Johansson et al.			07/06/01	
	6,442,496	08/27/02	Pasadyn et al.			08/08/00	
	6,563,308	05/13/03	Nagano et al.			03/27/01	
	6,587,744	07/01/03	Stoddard et al.			06/20/00	
<b>FOREIGN PATENT DOCUMENTS</b>							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	WO 01/11679	02/15/01	WIPO			X	
	WO 01/080306	10/25/01	WIPO			X	
<b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	Miller, G. L., D. A. H. Robinson, and J. D. Wiley. July 1976. "Contactless measurement of semiconductor conductivity by radio frequency-free-carrier power absorption." <i>Rev. Sci. Instrum.</i> , Volume 47, No. 7. pp. 799 – 805.						
	1999. "Contactless Bulk Resistivity/Sheet Resistance Measurement and Mapping Systems." <a href="http://www.Lehighton.com/fabtech1/index.html">www.Lehighton.com/fabtech1/index.html</a> .						
	2000. "Microsense II Capacitance Gaging System." <a href="http://www.adetech.com">www.adetech.com</a> .						
EXAMINER				DATE CONSIDERED			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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<b>FOREIGN PATENT DOCUMENTS</b>							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
<b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	El Chemali, Chadi et al. July/August 2000. "Multizone uniformity control of a chemical mechanical polishing process utilizing a pre- and postmeasurement strategy." <i>J. Vac. Sci. Technol.</i> Volume 18, No. 4. pp. 1287 – 1296.						
	March 5, 2001. "KLA-Tencor Introduces First Production-worthy Copper CMP In-situ Film Thickness and End-point Control System." <a href="http://www.kla-tencor.com/j/servlet/NewsItem?newsItemID=74">http://www.kla-tencor.com/j/servlet/NewsItem?newsItemID=74</a> .						
	2002. "Microsense II – 5810: Non-Contact Capacitance Gaging Module." <a href="http://www.adetech.com">www.adetech.com</a> .						
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	14 October 2003. PCT International Search Report from PCT/US02/21942.						
	20 October 2003. PCT International Search Report from PCT/US02/19116.						
	23 October 2003. PCT International Preliminary Examination Report from PCT/US01/24910.						
	"NanoMapper wafer nanotopography measurement by ADE Phase Shift." <a href="http://www.phase-shift.com/nanomap.shtml">http://www.phase-shift.com/nanomap.shtml</a> .						
	"Wafer flatness measurement of advanced wafers." <a href="http://www.phase-shift.com/wafer-flatness.shtml">http://www.phase-shift.com/wafer-flatness.shtml</a> .						
	"ADE Technologies, Inc. – 6360." <a href="http://www.adetech.com/6360.shtml">http://www.adetech.com/6360.shtml</a> .						
	"3D optical profilometer MicroXAM by ADE Phase Shift." <a href="http://www.phase-shift.com/microxam.shtml">http://www.phase-shift.com/microxam.shtml</a> .						
	"NanoMapper FA factory automation wafer nanotopography measurement." <a href="http://www.phase-shift.com/nanomapperfa.shtml">http://www.phase-shift.com/nanomapperfa.shtml</a> .						
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